

Minnesota State University Moorhead

BIOL 335: Tropical Conservation Biology

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 3

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 10 - People/Environment

There is one lecture per week during the spring semester to discuss definitions of biodiversity, and general principles of biological conservation. We discuss why diversity is so high in tropical regions, the value of biodiversity in terms of ecological services and economic potential. We then consider Costa Rica as a case study where these principles have been implemented so successfully. The "lab" component of this course is a mandatory, 12-day class trip to Costa Rica over spring break. In Costa Rica, students and faculty spend 2 days in a dry forest research station at Santa Rosa National Park to study the role of research in bioconservation, 4 days at an ecolodge in a humid forest in the "absolute" reserve at Cabo Blanco on the Pacific Ocean to study the impact of excluding people for more than 50 years, and another 4 days in cloud forest near Monteverde Reserve to study ecotourism as an effective but imperfect tool for conservation. A special fee is required to cover the costs of travel, food, and accommodations. MnTC Goal 10.

B. COURSE EFFECTIVE DATES: 09/02/2017 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. The concept of sustainability.
2. Pathways and trade-offs to a sustainable future.
3. The structure, function, and processes of tropical ecosystems (climatic, hydrologic, soils, social, and biological systems).
4. Understand how socio-cultural variables affect the ways in which environments are perceived and managed, and the ways in which people or societies react to environmental challenges.

D. LEARNING OUTCOMES (General)

1. Biodiversity-Description, Ecological Conditions, and conflicts between Human Activity and Biodiversity.
2. Conservation Biology
3. Ecopsychology
4. Ecology
5. Sustainability

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 10 - People/Environment

1. Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
2. Discern patterns and interrelationships of bio-physical and socio-cultural systems.
3. Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
4. Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
5. Propose and assess alternative solutions to environmental problems.
6. Articulate and defend the actions they would take on various environmental issues.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted